AUDIT REPORT FOR NEW ZEALAND

MAY 23 THROUGH JUNE 20, 2001

INTRODUCTION

Background

This report reflects information that was obtained during an audit of New Zealand's meat inspection system from May 23 through June 20, 2001. Nine of the 71 establishments certified to export meat to the United States were audited. Eight of these were slaughter establishments and one was conducting processing operations.

The last audit of the meat inspection system of New Zealand was conducted in March 2000. Seventy-two establishments were certified for U.S. export at that time; nine of these were audited and all nine were acceptable. Concerns reported at the time were: fecal contamination on a few carcasses in ME23, this was corrected at the time by MAF personnel; broken/cracked conveyor belt in ME78, corrective action was planned at that time by MAF personnel and the establishment personnel; peeling paint and rust spots in the carcass cooler in ME52, corrective action was planned at the time by MAF Officials; floors, doors and lockers were in need of repair, in S237, establishment officials and MAF personnel worked out a repair schedule. All of these deficiencies were corrected at the time of this audit.

From January through April 2001, New Zealand establishments exported 192,294,868 pounds of beef, mutton, lamb and goat to the United States. Port-of-entry (POE) rejections included 65,381 pounds that were rejected for contamination and processing defect.

PROTOCOL

This on-site audit was conducted in four parts. One part involved visits with New Zealand national meat inspection officials to discuss oversight programs and practices, including enforcement activities. The second entailed an audit of a selection of records in the country's meat inspection headquarters facilities preceding the on-site visits. The third was conducted by on-site visits to establishments. The fourth was a visit to one or more laboratories performing analytical testing of field samples for the national residue testing program, and culturing of field samples for the presence of microbiological contamination.

Program effectiveness determinations focused on five areas of risk: (1) sanitation controls, including the implementation and operation of Sanitation Standard Operating Procedures (SSOPs), (2) animal disease controls, (3) residue controls, (4) slaughter/ processing controls, including the implementation and operation of Hazard Analysis and Critical Control Point (HACCP) systems and the *E. coli* testing program, and (5) enforcement controls, including

inspection system controls and the testing program for *Salmonella* species. New Zealand's inspection system was assessed by evaluating these five risk areas.

During all on-site establishment visits, the auditor evaluated the nature, extent, and degree to which findings impacted on food safety and public health, as well as overall program delivery. The auditor also determined if establishment and inspection system controls were in place. Establishments that do not have effective controls in place to prevent, detect and eliminate product contamination/adulteration are considered unacceptable and therefore ineligible to export products to the U.S., and are delisted accordingly by the country's meat inspection officials.

RESULTS AND DISCUSSION

Summary

Effective inspection system controls were found to be in place in six of the nine establishments audited; three establishments, ME 86, ME 32 and ME15, were recommended for re-review. Details of audit findings, including compliance with HACCP, SSOPs, and testing programs for *Salmonella* and generic *Escherichia coli*, are discussed later in this report.

Entrance Meeting

On May 23, 2001, an entrance meeting was held in the Wellington offices of the Food Assurance Authority (FAA) of the Ministry of Agriculture and Forestry (MAF), and was attended by Dr. John Lee, FAA; Dr. Geoff Allen, FAA; Dr. Barry Marshall, FAA; Dr. Roger Cook, FAA; Dr. Mirzet Sabirovic, FAA; Mr. Neil Kiddey, FAA; Ms. Debbie Morris, FAA; Dr. Jeff Taylor, MAF VA; Dr. Luke McLean, MAF VA; Ms Judy Barker, FAA; Ms. Carolyn Andrews, FAA; Mr. David Young, U. S. Embassy, Agricultural Attache; Mr. Steve Benson, U S Embassy Agricultural Analyst and Dr. M. Douglas Parks, International Audit Staff Officer, USDA. Topics of discussion included the following:

- 1. Finalization of the audit itinerary.
- 2. The question of ruminant protein being fed to ruminants was discussed and MAF officials assured the auditor that it was against the law in New Zealand.
- 3. The audit of a farm was projected and the reason for that audit was discussed (residues in live animals).
- 4. New Zealand officials stated that it was not possible to centralize the records of establishments that were to have a "records only" audit. The records only audits were done on-site in the establishments.

5. The auditor gave the New Zealand officials several forms to be filled out by them and returned to the auditor at the time of the exit conference. These included country profile and questions for the laboratories.

Headquarters Audit

There had been no changes in the organizational structure or upper levels of inspection staffing since the last U.S. audit of New Zealand's inspection system in March 2000.

To gain an accurate overview of the effectiveness of inspection controls, FSIS requested that the audits of the individual establishments be led by the inspection officials who normally conduct the periodic reviews for compliance with U.S. specifications. The FSIS auditor (hereinafter called "the auditor") observed and evaluated the process.

The auditor conducted a review of general inspection system documents pertaining to the establishments listed for records review. This records review was conducted at the inspection system headquarters in Wellington. The records review focused primarily on food safety hazards and included the following:

- Training records for inspectors and laboratory personnel.
- Label approval records and special label claims.
- New laws and implementation documents such as regulations, notices, directives and guidelines, and examples of how new requirements are communicated to field personnel.
- Sanitation, slaughter and processing inspection procedures and standards.
- Control of products from livestock with conditions such as tuberculosis and cysticercosis, and of inedible and condemned materials.
- Export product inspection and control including export certificates.
- Enforcement records, including examples of criminal prosecution, consumer complaints, recalls, seizure and control of non-compliant product, and withholding, suspending, and/or withdrawing inspection services from or delisting an establishment that is certified for U.S. export.
- The national program for field sampling for residue testing program.

No concerns arose as a result the examination of these documents.

Establishment documents from 14 randomly selected establishments that were not scheduled for on-site visits were also audited. These documents included:

- Reports resulting from internal supervisory visits to establishments that were certified for U.S. export.
- Records generated in compliance with Pathogen Reduction requirements (SSOPs, HACCP programs, generic *E. coli* testing and *Salmonella* testing).

The following concerns arose as a result the examination of these documents.

- Preventive action is consistently not being recorded in the SSOP and HACCP programs.
- Carcasses are not being selected randomly for sampling.
- Poison baits for rodent control are put in production related areas such as box storage.
- Critical Control Limits were not measurable; they were judgmental.

Government Oversight

All inspection service inspectors in establishments certified for U.S. export were ASURE employees, receiving no remuneration from either industry or establishment personnel for services rendered in the fulfillment of their national meat/poultry inspection duties. ASURE is a corporation under contract with MAF for the inspection services.

Establishment Audits

Seventy-one establishments were certified to export meat to the United States at the time this audit was conducted. Nine of these were randomly selected to be visited for on-site audits. In all of the nine establishments visited, MAF inspection system controls and establishment system controls were both in place to prevent, detect and control contamination and adulteration of products, however, three establishments were placed on re-review. They are ME15, ME32 and ME86. Details of the audit findings pertaining to these three establishments are discussed in the Slaughter/Processing Controls section of this report.

Laboratory Audits

During laboratory audits, emphasis was placed on the application of procedures and standards that were equivalent to U.S. Information was also collected about the risk areas of government oversight of accredited, approved, and private laboratories, intra-laboratory quality assurance procedures, including sample handling; and methodology.

The National Chemical Residue Laboratory in Upper Hutt was audited on June 12, 2001. Effective controls were in place for sample handling, sampling frequency, timely analysis, data reporting, analytical methodologies, tissue matrices for analysis, equipment operation and printouts, detection levels, recovery frequency, percent recoveries, intra-laboratory check samples, and quality assurance programs, including standards books and corrective actions The methods used for the analyses were acceptable. No compositing of samples was done.

New Zealand's microbiological testing for *E. coli* and *Salmonella* was being performed in private laboratories. One of these, the MLS Envirolab in Invercargill, was audited. The auditor determined that the system met the criteria established for the use of private laboratories under FSIS's Pathogen Reduction/HACCP rule. These criteria are:

- 1. The laboratories were accredited/approved by the government, accredited by third party accrediting organization with oversight by the government, or a government contract laboratory.
- 2. The laboratories had properly trained personnel, suitable facilities and equipment, a written quality assurance program, and reporting and record-keeping capabilities.
- 3. Results of analyses were being reported to the government or simultaneously to the government and establishment.

Establishment Operations by Establishment Number

The following operations were being conducted in the nine establishments audited on-site:

Establishments ME42, ME47 and ME86: beef and sheep slaughter and boning Establishments ME09, ME15, ME32 and ME1253: beef slaughter and boning Establishment ME50: sheep slaughter and boning Establishment ME113: sheep, goat and deer boning

In addition, the following operations were being conducted in the fourteen establishments for which only records were audited:

Establishments ME21, ME26, ME39, and ME56: beef and sheep slaughter and boning Establishments ME23, ME43, ME66, ME70, ME82, ME124 and ME127: Beef slaughter and boning

Establishment ME100: beef and horse slaughter and boning.

Establishment PH490: beef and sheep boning.

Establishment PH71: sheep boning.

SANITATION CONTROLS

Sanitation Standard Operating Procedures (SSOPs)

Based on the on-site audits of establishments, New Zealand's inspection system had controls in place for basic establishment facilities, condition of facilities and equipment, product protection and handling and establishment sanitation programs.

Each establishment was evaluated to determine if the basic FSIS regulatory requirements for SSOPs were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment A).

The SSOPs were found to meet the basic FSIS regulatory requirements with the following exception:

• Preventive action is not recorded in almost all establishments.

ANIMAL DISEASE CONTROLS

New Zealand's inspection system had controls in place to ensure adequate animal identification, ante-mortem and post-mortem inspection procedures and dispositions, condemned and restricted product control, and procedures for sanitary handling of returned and rework product.

There were reported to have been no outbreaks of animal diseases with public-health significance since the previous U.S. audit.

A consultation was carried out with an official of AgriQuality who reports to MAF Biosecurity Authority (MAF BA), which is responsible for animal diseases. Some of their present activities deal with Tuberculosis, Brucellosis, Foot and Mouth Disease, and Bovine Spongiform Encephalopathy. These programs are in the forefront because of their danger to public health and for economic reasons.

RESIDUE CONTROLS

New Zealand's National Residue Testing Plan for 2001 was being followed and was on schedule. The New Zealand inspection system had adequate controls in place to ensure compliance with sampling and reporting procedures and storage and use of chemicals.

A visit to a farm was carried out for inquiry into the handling of animals that are treated onfarm and how records of individual animals are kept for withdrawal periods before submission to the slaughter establishments and the use of drugs, control of pesticides and animal identification. Consultations were with the farm owners, the attending veterinarian and MAF Officials. The findings were all satisfactory.

SLAUGHTER/PROCESSING CONTROLS

Except as noted below, the New Zealand inspection system had controls in place to ensure adequate product protection and processed product control:

- 1. Establishment ME15: The floor cleaning person was also working the carcass detain rail without changing clothes. The buccal cavity was washed after opening the cavity thus exposing the cut surfaces of edible product to ingesta. The anal cut was continued into other tissues without first sanitizing the knife. The moving viscera table had residues of previous uses. The Halal bleeding bars were not cleaned and sanitized between uses. There is an area of common touch of some carcasses after the split saw. Poison rodent baits were located in the box storage room.
- 2. Establishment ME32: The anal cut was continued into other tissues without first sanitizing the knife. In the carcass cooler, feces were observed on two of 25

- carcasses examined. In the HACCP program, the critical control limits were not measurable, they were judgmental.
- 3. Establishment ME86: Urine spillage was seen on carcasses during the dressing procedure and was not removed. Some observed carcasses' front legs touched the condemned product chute at the final rail. Condensate was dripping into the trafficway of an exposed product handler. No rodent monitoring devices in the plant.

HACCP Implementation

All establishments approved to export meat products to the U.S. are required to have developed and implemented a Hazard Analysis – Critical Control Point (HACCP) system. Each of these systems was evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment B). One problem was seen generally and is noted below:

1. Preventive action was not being recorded.

The HACCP programs were found to meet the basic FSIS regulatory requirements. A hazard analysis was performed at each establishment. However, boning establishments did not identify any hazards and, therefore, did not establish any critical control points.

Testing for Generic E. coli

New Zealand has adopted the FSIS regulatory requirements for generic *E. coli* testing with the exception of the following equivalent measures:

- 1. GENERIC *E. COLI* TESTING STRATEGY: Frequency of Testing. The criteria used for equivalence decisions for determining whether a different testing frequency for generic *E. coli* testing is equivalent are:
 - Testing frequency is based on production volume with at least one test per week.
 - The predominant class of animals slaughtered in an establishment is sampled.
- 2. SAMPLING SITES: Location of Sampling Sites. New Zealand samples cattle at three sites: flank, brisket, and outside hind leg (as written in the equivalence evaluation document). The criteria used for making equivalence decisions for determining whether different sample sites for *E. coli* testing is equivalent are:
 - The sample sites include the sites most likely to be contaminated with fecal contamination.
 - The sample sites encompass a large enough surface area to ensure that the effectiveness of the slaughter process controls will be evaluated.
 - The sample sites provide the same probability of detecting the presence of fecal contamination as the FSIS sample sites.

- 3. SAMPLING TOOLS. New Zealand uses a swab-sampling tool. The criteria used for making equivalence decisions for approval of alternative sampling tools for sampling for *E. coli* are:
 - The tool is a traditional generally recognized sample collection tool for sampling for *E. coli* on meat or poultry surfaces.
 - The tool is sensitive enough to gather *E. coli* present on the sample site.
 - The tool does not contaminate the surfaces of the carcass.

If the carcass for testing is selected randomly, they can sample one side for *E. coli* and the other side for *Salmonella*; thus taking samples on alternating sides.

Eight of the establishments audited conducted slaughter operations and were therefore required to meet the basic FSIS regulatory requirements for generic *E. coli* testing, and were audited and evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment C).

The generic *E. coli* testing programs were found to meet the basic FSIS regulatory requirements. The following deficiency was observed.

1. Carcasses were not selected randomly.

Additionally, establishments had adequate controls in place to prevent meat products intended for New Zealand domestic consumption from being commingled with products eligible for export to the U.S.

ENFORCEMENT CONTROLS

Inspection System Controls

New Zealand's inspection system controls [ante- and post-mortem inspection procedures and dispositions, control of restricted product and inspection samples, control and disposition of dead, dying, diseased or disabled animals, boneless meat reinspection, shipment security, including shipment between establishments, prevention of commingling of product intended for export to the United States with domestic product, monitoring and verification of establishment programs and controls (including the taking and documentation of corrective actions under HACCP plans), inspection supervision and documentation, the importation of only eligible livestock or poultry from other countries (i.e., only from eligible countries and certified establishments within those countries), and the importation of only eligible meat or poultry products from other countries for further processing] were in place and effective in ensuring that products produced by the establishment were wholesome, unadulterated, and properly labeled. In addition, adequate controls were found to be in place for security items, shipment security, and products entering the establishments from outside sources.

Testing for Salmonella Species

Eight of the establishments audited were required to meet the basic FSIS regulatory requirements for *Salmonella* testing, and were evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment D).

New Zealand has adopted the FSIS regulatory requirements for *Salmonella* testing with exception of the following equivalent measures:

- 1. SAMPLE COLLECTOR: Establishments take samples. The criteria used for equivalence decisions for use of establishment employees in lieu of government employees are:
 - MAF develops a written, national sampling plan and enforces a national *Salmonella* testing program for sample collection and processing that is followed in all New Zealand establishments that export meat products to the United States.
 - Sample collection procedures are directly reviewed via specific tasks that are assigned to a trained on-site veterinarian from MAF Verification Agency. The accredited lab and the non-government accreditation authority (MILAB) are responsible for ensuring correct sampling procedures. MAF Food (Compliance) performs periodic audits of MILAB and MAF Verification, including the oversight and monitoring activities of the sample collector. MAF Food (Animal Products) has mandatory access to all microbiological test results, including Salmonella test results. The on-site MAF Verification Agency Veterinarian also has direct access to all Salmonella test results.
 - MAF uses *Salmonella* test results to monitor the performance of each establishment over time.
 - The government of New Zealand (MAF) takes immediate action any time an establishment fails to meet a *Salmonella* performance standard.
- 2. LABORATORIES: Private Laboratories. The criteria used for equivalence decisions for the use of private laboratories in lieu of government laboratories are:
- The laboratory must be accredited/approved by the government, accredited by third party accrediting organization with oversight by the government, or a government contract laboratory.
- The laboratory must have properly trained personnel, suitable facilities and equipment, a written quality assurance program, and reporting and record-keeping capabilities.
- Results of analyses must be reported to the government or simultaneously to the government and establishment.

The government of New Zealand addresses these requirements as follows:

 The laboratories are independent non-government, or establishment laboratories that are all accredited by a government accreditation authority (MILAB). MILAB, in turn, is audited bi-annually by MAF FOOD (Compliance). MILAB standards are set by MAF Food (Animal Products). All laboratories are assessed to ISO 25 standards. MILAB accreditation and responsibilities are audited bi-annually and at the request of MAF Food (Animal Products) by MAF Food (Compliance).

- The Inter-laboratory Comparison Program is a government program that conducts monthly proficiency tests with each accredited laboratory and is accredited to ISO 9000 and ISO Guide 43.
- The accreditation program is mandated, established, and regulated by MAF Food (Animal Products).
- All accredited laboratories have a formal program which ensures that laboratory personnel are properly trained, that there are suitable facilities and equipment, that there is a written quality assurance program, and that there are adequate reporting and record keeping facilities.
- Test results are reported directly to establishment personnel who in turn report them to MAF inspection personnel.
- 3. SAMPLING TOOLS: The swab tool method of sample collection is used. The criteria used for making decisions for approval of an alternative sampling tool for sampling for *Salmonella* are:
 - The tool is an internationally recognized sample collection tool for sampling *Salmonella* on meat or poultry products.
 - The swab is sensitive enough to gather an adequate quantity of the *Salmonella* that are present at the sample sites.
 - The swab does not contaminate surfaces of the carcass.
- 4. SAMPLING TECHNIQUES; if the carcass for testing is selected randomly, they can sample one side for *E. coli* and the other side for *Salmonella*; thus taking samples on alternating sides. Time of collection of samples. The criteria used for making equivalence decisions for determining whether a different time for sample collection is equivalent are: Samples are taken at the end of the slaughter or production process. Samples are taken prior to the carcass being cut and /or packaged.

The *Salmonella* testing programs were found to meet the basic FSIS regulatory requirements with the following exceptions:

- 1. The carcasses were not randomly selected in six establishments.
- 2. The sampling is done in some establishments by Asure personnel.

Species Verification

At the time of this audit, New Zealand was not exempt from the species verification-testing requirement. The auditor verified that species verification was being conducted in accordance with FSIS requirements.

Monthly Reviews

These reviews were being performed by the New Zealand equivalent of Circuit Supervisors. All have many years of experience. Dr. Chris Mawson was in charge of the establishments on the North Island, and Dr. Goeff Taylor was in charge of the establishments on the South Island.

The internal review program was applied equally to both export and non-export establishments. Internal review visits were not always announced in advance, and were conducted, at times by individuals and at other times by a team of reviewers, at least once monthly. When in the opinion of the auditor, a good record is established, the audit interval may be lengthened to 2 or 3 months. The records of audited establishments were kept in the inspection offices of the individual establishments, and copies were also kept in the central MAF offices in Wellington, and were routinely maintained on file

In the event that an establishment is found, to be out of compliance with U.S. requirements during one of these internal reviews, and is delisted for U.S. export, before it may again qualify for eligibility to be reinstated, an auditor or a team is empowered to conduct an indepth review, and the results are reported to Drs. Mawson or Taylor for evaluation; they formulate a plan for corrective actions and preventive measures. This plan must be in place before re-instatement is done.

Enforcement Activities

Total investigations since April 2000 is 627, prosecution details are as follows:

May 31, 2001 – Selling uninspected meat four times. Charges under Meat act 1981-s9 (1) and 47(1)(a). Pleaded guilty in Hamilton District Court and was fined \$6000 plus \$520 court costs and Solicitors fees of \$250.

There are three pending cases at the present time as follows:

- 1. illegal possession and sale of uninspected meat
- 2. bobby calf residue violation (2 cases).

New Zealand officials stated that people convicted of a felony meat violation would be allowed to reenter the meat business when their debt to society had been paid (fine and/or incarceration).

Exit Meetings

An exit meeting was conducted in Wellington on June 20, 2001. The New Zealand participants were Dr. Tony Zohrab, MAF Director Animal Products; Dr. Roger Cook, MAF Microbiology; Dr. Goeff Allen, MAF Compliance Director; Dr. Chris Mawson, MAF VA

Director; Dr. Luke McLean, MAF QA; Dr. Mirzet Sabirovic, MAF; Mr. Niel Kiddey, MAF Compliance; Ms. Judy Barker, MAF; Dr. Phil Ward, MAF Europe Market Access; Mr. Dennis Butler, Meat Industry Standards Council; Mr. Stephen Benson, U S Embassy, Agriculture Analyst; Ms. Carolyn Andrews, MAF and Dr. M. Douglas Parks, International Audit Staff Officer, USDA.

The following topics were discussed:

- 1. Ratings of establishments and deficiencies. The records-only audits revealed that PH 490 and PH71 had no HACCP programs in place. A hazard analysis was done but revealed no hazards that led to CCPs. There was a discussion about this and Dr. Zohrab presented evidence to support their viewpoint that no CCP is mandated. His contention was that the equivalence determination already done allowed them to accept the no CCP situation. No agreement on this point was reached and will be handled by the International Policy Staff in Washington, D.C.
- 2. Compliance and enforcement. New Zealand officials said that people convicted of a felony meat violation would be allowed to reenter the meat business when their debt to society had been paid (fine and/or incarceration).
- 3. The auditor collected the documents requested at the entrance meeting.
- 4. Urine spillage on sheep was discussed and the New Zealand officials stated that this was not acceptable and that they would manage the problem.
- 5. Preventive action in the SSOP and HACCP programs was not recorded in almost all plants. The New Zealand officials acknowledged this problem and pledged to correct the matter immediately.
- 6. The random selection of the carcasses for *E. coli* and *Salmonella* testing was not done in almost all establishments. It was agreed that industry and New Zealand officials would be reminded of the requirements, and guidance provided for implementation.
- 7. Poison baits for rodents in production related areas such as box storage was discussed and the response was that they would look into the matter and communicate their findings.
- 8. For *E. coli* and *Salmonella* testing methods they stated they would supply a copy for equivalence determination of the methods of the NMD and MIRINZ 873, which are the methods they are using at the present time.
- 9. Some critical control points in various parts of the programs were not a measurable entity and were a judgment matter in many establishments. Tony Zohrab agreed that this issue needed further investigation and clarification and improved guidance provided to industry.
- 10. In *Salmonella* testing, the carcass selection is done as the other half of the carcass that is selected for *E. coli* testing (which is not selected randomly). They stated that their procedure was equivalent and said they would provide supporting evidence.
- 11. The removal and discarding of small stock (sheep and goats) heads before inspection was discussed and Tony Zohrab said that an equivalence had been granted and that he would see if they could find the letter from the International Policy Staff concerning this matter and supply a copy.
- 12. The deficiencies in the three establishments that were classified as acceptable/re-review

(ME15, ME32, and ME86) were discussed and all were addressed in a satisfactory manner.

CONCLUSION

The inspection system of New Zealand was found to have effective controls to ensure that product destined for export to the United States was produced under conditions equivalent to those which FSIS requires in domestic establishments. Major concerns were: SSOP and HACCP plans did not include the records of preventative action taken; Slaughter—Processing deficiencies in Establishments ME15, MEQ32 and ME86 (see section so titled for details); HACCP plans in processing only plants did not have any critical control points; carcasses for *E. coli* and *Salmonella* testing were not selected randomly. Nine establishments were audited: six were acceptable, and three were evaluated as acceptable/re-review. The deficiencies encountered during the on-site establishment audits were adequately addressed to the auditor's satisfaction.

Dr. .M. Douglas Parks International Audit Staff Officer (signed)Dr. .M. Douglas Parks

ATTACHMENTS

- A. Data collection instrument for SSOPs
- B. Data collection instrument for HACCP programs
- C. Data collection instrument for E. coli testing
- D. Data collection instrument for Salmonella testing
- E. Laboratory Audit Forms
- F. Individual Foreign Establishment Audit Forms
- G. Written Foreign Country's Response to the Draft Final Audit Report

Data Collection Instrument for SSOPs

Each establishment was evaluated to determine if the basic FSIS regulatory requirements for SSOPs were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument contained the following statements:

- 1. The establishment has a written SSOP program.
- 2. The procedure addresses pre-operational sanitation.
- 3. The procedure addresses operational sanitation.
- 4. The pre-operational procedures address (at a minimum) the cleaning of food-contact surfaces of facilities, equipment, and utensils.
- 5. The procedure indicates the frequency of the tasks.
- 6. The procedure identifies the individuals responsible for implementing and maintaining the activities.
- 7. The records of these procedures and any corrective action taken are being maintained on a daily basis.
- 8. The procedure is dated and signed by the person with overall on-site authority.

The results of these evaluations were as follows:

	1.Written program	2. Pre-op sanitation	3. Oper. sanitation	4. Contact surfaces	5. Frequency	6. Responsible indiv.	7. Docu- mentation	8. Dated and signed
Est.#	addressed	addressed	addressed	addressed	addressed	identified	done daily	
86	V	V	√	V	$\sqrt{}$	V	V	$\sqrt{}$
32	V	V	√	V	$\sqrt{}$	V	V	$\sqrt{}$
09	V	V	√	V	$\sqrt{}$	V	V	$\sqrt{}$
47	V	V	√	V	$\sqrt{}$	V	V	$\sqrt{}$
125	V	V		V	$\sqrt{}$	V	V	V
15	V	V	√	V	$\sqrt{}$	V	V	$\sqrt{}$
113	V	V	√	V	$\sqrt{}$	V	V	$\sqrt{}$
50	V	V	√	V	$\sqrt{}$	V	no	$\sqrt{}$
42	V	V	V	V	V	V	V	V

Documentation was also audited from the following establishments that were not visited onsite, during the centralized document audit:

39	V	$\sqrt{}$	V	V	V	V	$\sqrt{}$	V
43	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	1	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	V
82	√	V	√	√	V	√	no	no
100	$\sqrt{}$	$\sqrt{}$		$\sqrt{}$	V	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
127	$\sqrt{}$	\checkmark	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	no	$\sqrt{}$
124	$\sqrt{}$	\checkmark	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	\checkmark	$\sqrt{}$
23	$\sqrt{}$	\checkmark	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	\checkmark	$\sqrt{}$
490	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
70		$\sqrt{}$		V	V		$\sqrt{}$	no
26		$\sqrt{}$		V	V		$\sqrt{}$	
21		$\sqrt{}$		V	V		$\sqrt{}$	no
56	√	V	√	√	V	√	no	V
71	√	V	√	V	V	√	V	no
66	√	V	√	√	V	√	no	√

Data Collection Instrument for HACCP Programs

Each of the establishments approved to export meat products to the U.S. was required to have developed and implemented a Hazard Analysis – Critical Control Point (HACCP) system. Each of these systems was evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument included the following statements:

- 1. The establishment has a flow chart that describes the process steps and product flow.
- 2. The establishment has conducted a hazard analysis that includes food safety hazards likely to
- 3. The analysis includes the intended use of or the consumers of the finished product(s).
- 4. There is a written HACCP plan for each product where the hazard analysis revealed one or more food safety hazard(s) reasonably likely to occur.
- 5. All hazards identified in the analysis are included in the HACCP plan; the plan lists a CCP for each food safety hazard identified.
- 6. The HACCP plan specifies critical limits, monitoring procedures, and the monitoring frequency performed for each CCP.
- 7. The plan describes corrective actions taken when a critical limit is exceeded.
- 8. The HACCP plan was validated using multiple monitoring results.
- 9. The HACCP plan lists the establishment's procedures to verify that the plan is being effectively implemented and functioning and the frequency for these procedures.
- 10. The HACCP plan's record-keeping system documents the monitoring of CCPs and/or includes records with actual values and observations.
- 11. The HACCP plan is dated and signed by a responsible establishment official.
- 12. The establishment is performing and documenting pre-shipment document reviews as required.

The results of these evaluations were as follows:

Est.#	1. Flow diagram	2. Haz. analysis –all ID'ed	3. Use & users includ- ed	4. Plan for each hazard	5. CCPs for all hazards	6. Monitoring is specified	7. Corr. actions are des- cribed	8. Plan valida- ted	9. Adequate verific. procedures	10. Ade- quate docu- menta- tion	11. Dat- ed and signed	12. Pre- ship- ment doc. re- views
86	√	√	√	√	√	√	√	√	√	√	no	√
32	no	√	V	√	√	√	no	√	√	√	√	V
09	√	V	V	V	V	V	V	√	√	V	√	V
47	√	V	V	V	V	V	no	√	no	√	√	√
125	√	√	V	V	V	V	no	√	√	V	√	V
15	√	V	V	V	√	V	no	√	√	V	no	V
113	no	сср	no	plan								
50	√	√	V	√	V	V	no	√	√	√	√	V
42	√	√	1	1	1	1	no	√	√	√	√	√

Documentation was also audited from the following establishments that were not visited on-site, during the centralized document audit:

39	V	V	V	V	√	√	no	V	√	√	V	V
43	V	V	V	V	V	√	no	V	√	√	V	√
82	√	√	V	√	V	V	no	V	V	√	no	√
100	V	no	V	V	√	V	no	V	√	√	V	V
127	$\sqrt{}$	V	V	V	√	V	no	V	$\sqrt{}$	√	$\sqrt{}$	$\sqrt{}$
124	V	V	V	V	V	√	no	V	√	√	V	V
23	√	√	√	√	√	√	no	V	√	√	√	V
490	no	сер	no	plan								
70	V	V	V	V	V	√	no	V	√	√	V	V
26	V	√	V	V	√	√	no	V	√	√	V	√
21	V	V	V	V	V	V	no	V	√	√	V	V
56	√	√	√	√	√	√	no	√	√	√	√	√
71	no	сер	no	plan								
66	V	V	V	V	V	V	V	V	V	V	V	V

Data Collection Instrument for Generic E. coli Testing

Each establishment was evaluated to determine if the basic FSIS regulatory requirements for generic *E. coli* testing were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument contained the following statements:

- 1. The establishment has a written procedure for testing for generic *E. coli*.
- 2. The procedure designates the employee(s) responsible to collect the samples.
- 3. The procedure designates the establishment location for sample collecting.
- 4. The sample collection is done on the predominant species being slaughtered.
- 5. The sampling is done at the frequency specified in the procedure.
- 6. The proper carcass site(s) and/or collection methodology (sponge or excision) is/are being used for sampling.
- 7. The carcass selection is following the random method specified in the procedure or is being taken randomly.
- 8. The laboratory is analyzing the sample using an AOAC Official Method or an equivalent method.
- 9. The results of the tests are being recorded on a process control chart showing the most recent test results.
- 10. The test results are being maintained for at least 12 months.

	1.Writ-	2. Samp-	3.Samp-	4. Pre-	5. Samp-	6. Pro-	7. Samp-	8. Using	9. Chart	10. Re-
	ten pro-	ler des-	ling lo-	domin.	ling at	per site	ling is	AOAC	or graph	sults are
Est. #	cedure	ignated	cation	species	the req'd	or	random	method	of	kept at
			given	sampled	freq.	method			results	least 1 yr
86	$\sqrt{}$				$\sqrt{}$		no			\checkmark
32	\checkmark				\checkmark					$\sqrt{}$
09		√					no			\checkmark
47		√					no			\checkmark
125	$\sqrt{}$		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				$\sqrt{}$
15	\checkmark	no			\checkmark		no			$\sqrt{}$
113	bone	only								
50	\checkmark				\checkmark		no			
42	$\sqrt{}$						no			

Documentation was also audited from the following establishments that were not visited onsite, during the centralized document audit:

39						 	 	
43		√		$\sqrt{}$	√	 no	 	\checkmark
82		√	no		√	 √	 	$\sqrt{}$
100		√			√	 no	 	$\sqrt{}$
127		√			√	 √	 	$\sqrt{}$
124			no		V	 	 	$\sqrt{}$
23			no		V	 no	 	
490	bone	only						
70			no		V	 no	 	
26		√	no		√	 no	 	$\sqrt{}$
21		√		$\sqrt{}$	√	 no	 	$\sqrt{}$
56	ran	out	of	time				
71	bone	only						
66						 no	 	$\sqrt{}$

Data Collection Instrument for Salmonella testing

Each slaughter establishment was evaluated to determine if the basic FSIS regulatory requirements for *Salmonella* testing were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument included the following statements:

- 1. Salmonella testing is being done in this establishment.
- 2. Carcasses are being sampled.
- 3. Ground product is being sampled.
- 4. The samples are being taken randomly.
- 5. The proper carcass site(s) and/or collection of proper product (carcass or ground) is being used for sampling.
- 6. Establishments in violation are not being allowed to continue operations.

The results of these evaluations were as follows:

	1. Testing	2. Carcasses	3. Ground	4. Samples	5. Proper site	6. Violative
Est. #	as required	are sampled	product is	are taken	and/or	est's stop
			sampled	randomly	proper prod.	operations
86	$\sqrt{}$	$\sqrt{}$	N/A	no	$\sqrt{}$	$\sqrt{}$
32	$\sqrt{}$	$\sqrt{}$	N/A	no	$\sqrt{}$	$\sqrt{}$
09	$\sqrt{}$	$\sqrt{}$	N/A	no	$\sqrt{}$	$\sqrt{}$
47	$\sqrt{}$	$\sqrt{}$	N/A	no	$\sqrt{}$	$\sqrt{}$
125	V		N/A	no	V	$\sqrt{}$
15	V		N/A	no	V	$\sqrt{}$
113	bone	only				
50	V	V	N/A	no	V	V
42	V	V	N/A	no		$\sqrt{}$

Documentation was also audited from the following establishments that were not visited onsite, during the centralized document audit:

39	$\sqrt{}$	$\sqrt{}$	N/A	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
43	√	√	N/A	√	√	√
82	√	$\sqrt{}$	N/A		$\sqrt{}$	$\sqrt{}$
100	√	$\sqrt{}$	N/A		$\sqrt{}$	$\sqrt{}$
127	√	$\sqrt{}$	N/A		$\sqrt{}$	$\sqrt{}$
124	V	$\sqrt{}$	N/A	V	$\sqrt{}$	$\sqrt{}$
23	V	$\sqrt{}$	N/A	V	$\sqrt{}$	$\sqrt{}$
490	boning	only				
70	$\sqrt{}$	$\sqrt{}$	N/A	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
26	√	$\sqrt{}$	N/A		$\sqrt{}$	$\sqrt{}$
21	√	√		√	√	√
56	ran	out	of	time		
71	boning	only				
66	V	V	N/A	V	V	V